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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 10/814,722 | 03/31/2004 | David Joseph Najewicz | 135091-1/YOD<br>GERD:0111 | 9857 |

6147 7590 06/29/2009

GENERAL ELECTRIC COMPANY
GLOBAL RESEARCH
PATENT DOCKET RM. BLDG. K1-4A59
NISKAYUNA, NY 12309

| EXAMINER | |
|---|---|
| SUERETH, SARAH ELIZABETH | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 3749 | |

| NOTIFICATION DATE | DELIVERY MODE |
|---|---|
| 06/29/2009 | ELECTRONIC |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/814,722 | NAJEWICZ ET AL. | |
| | Examiner | Art Unit | |
| | Sarah Suereth | 3749 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *16 March 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-39* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-39* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

## DETAILED ACTION

### *Response to Amendment*

1. Receipt of applicant's amendment filed on 03/16/09 is acknowledged.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1,4-11,14-21,34,35,38,39 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,749,005 to Bergquist ("Bergquist") (newly cited by the examiner) in view of U.S. Patent No. 5,795,998 to Smith ("Smith") (cited previously by the examiner).

Bergquist discloses in the specification and figures 1-8 an invention in the same field of endeavor as applicant's invention and similar to that described in applicant's claims. In particular, Bergquist shows a method of enhancing burner performance and a gas range system that includes a pressure regulator in the form of actuating device (12), which functions to regulate gas flow through a gas feed line (10). The pressure regulator is upstream of a second flow regulator (C), which is then connected to burners (22), see Figure 1.

The second flow regulator performs the functions listed in the claims, including supplying gas to the burners at a regulated pressure (col. 3, lines 17-23). However, the second flow regulator (C ) is not disclosed to be a fuel boost pump. Also, it is unclear if the Bergquist device includes a microcontroller.

Smith discloses a gas fuel control system including a microcontroller (22) connected to a transducer (20 or 38), and a variable speed or variable displacement (col. 2, lines 9-10) pump (25). Smith teaches that the controller coupled to the variable speed pump serves to supply the required pressure with a high degree of accuracy (see "error substantially zero" col. 5, lines 27-28).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Bergquist apparatus by replacing the fuel regulator with a fuel regulating pump and pump controller, in order to increase the accuracy of the fuel pressure supplied to the burner (Smith, col. 5, lines 27-28)

Regarding claims 6,16 and 19, Bergquist discloses fuel flowing into the burner (22). Although the orifice isn't explicitly shown in the drawings, it must inherently exist in order for fuel to flow as described and shown in Figure 1.

Regarding claim 9, Bergquist shows the pressure regulator coupled to a plurality of burners (22).

Regarding claim 10, Bergquist shows each burner having a throttling valve (20).

In regard to the limitations in the claims of a venturi (e.g. claim 7) and a plurality of burner ports providing secondary air entrainment (e.g. claim 8), applicant notes that such features are not inventive and present in conventional gas operated cooking appliances (see applicant's specification p. 1) of the type shown in Bergquist. The burner ports are necessary to allow flames to cook the food on the range top, and a venturi is conventionally used in burners to increase the gas/air mixing. Therefore, it would be obvious to a person of ordinary skill in the art to incorporate the conventional burner structures identified by applicant to provide a burner assembly for a cooking appliance as is well known in art.

5. Claims 2,3,12,13,22,23,28-33,36,37 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,749,005 to Bergquist ("Bergquist") (newly cited by the examiner) in view of U.S. Patent No. 5,795,998 to Smith ("Smith") (cited previously by the examiner), further in view of U. S. Patent Number 5,924,857 to Frasnetti et al ("Frasnetti").

Bergquist in view of Smith, as discussed above, discloses many elements of the claimed invention, with the exception that regulating the gas flow rate in accordance with a user-defined input is not explicitly taught.

Smith teaches a controller that receives signals representing the demanded flow rate (col. 6, lines 20-23), and then relies on input from the transducer to determine if the demanded flow rate is being met (Figure 5, also col. 6, lines 23-28), but the controller does not receive direct input from the user.

Frasnetti discloses a gas burner control system including a pressure regulator (3) in the gas supply line (2) that controls the feed of a gas burner (1). The pressure regulator is controlled by a controller (4). The controller receives user input as to the desired burner output (col. 2, lines 19-27), and then computes the required gas flow pressure for the regulator (col. 2, lines 40-45).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Bergquist in view of Smith apparatus with the controller features taught by Frasnetti, in order to allow the user to adjust the burner output as needed (col. 2, lines 19-27).

6. Claims 22-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,749,005 to Bergquist ("Bergquist") (newly cited by the examiner) in view of U.S. Patent No. 5,795,998 to Smith ("Smith") (cited previously by the examiner), further in view of U. S. Patent Number 6,287,108 to Rothenberger et al ("Rothenberger") (cited previously by applicant).

Bergquist in view of Smith, as discussed above, discloses many elements of the claimed invention, with the exception that regulating the gas flow rate in accordance with a user-defined input is not explicitly taught.

Smith teaches a controller that receives signals representing the demanded flow rate (col. 6, lines 20-23), and then relies on input from the transducer to determine if the demanded flow rate is being met (Figure 5, also col. 6, lines 23-28), but the controller does not receive direct input from the user.

Rothenberger shows a method of enhancing burner performance and a gas range system that includes a pressure regulator in the form of actuating device (8) which is responsive to sensed conditions including pressure fluctuations and functioning to regulate gas flow through a gas feed line (see at least col. 6, lines 55-63 and col. 8, lines 12-39).

In regard to claims 25 and 26, Rothenberger discloses the use of the recited gas fuel types (see col. 1, lines 15-24), and allowing the controller to adjust the flow rate based on the fuel type in use (note col. 5, lines 8-27).

In regard to claims 27 and 28, Rothenberger clearly discloses that the user defined input for controlling the gas flow may selected as desired (note col. 5, lines 8-

27) based on the desired heat output and local environmental conditions (see col. 5, lines 45-56). This is regarded as selecting an input based on required burner power and altitude of installation.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Bergquist in view of Smith apparatus with the controller features taught by Rothenberger, in order to allow the user to adjust the burner output to the type of fuel or environmental conditions (col. 5, lines 19-27), in order to customize the controller to suit the installation environment.

### ***Response to Arguments***

7. Applicant's arguments filed 3/16/09 have been fully considered but they are not persuasive.

8. Applicant argues Bergquist shows a valve (12) that is not a “pressure regulator” as claimed. The examiner respectfully disagrees. Applicant does not disclose a special definition or structure for the pressure regulator (14) in the specification. Figure 1 shows the pressure regulator (14) illustrated with a conventional valve symbol. There is no discussion in the disclosure that the pressure regulator is anything other than a conventional pressure valve.

9. Applicant argues that Bergquist shows a valve (12) that is intended to be used to shut off the gas flow supply completely. The examiner agrees with this interpretation of the Bergquist reference. However, even operating only to shut off or restart gas flow, the Berquist valve is “adapted to regulate a gas flow from a gas feed line”. The valve is

explicitly disclosed to start or stop the gas flow from the feed line, thus changing the pressure of the gas flow at those times. Contrary to applicant's arguments, the claims do not require that the pressure regulator constantly adjusts the pressure in the gas fuel line.

10. Regarding the argument that Bergquist in view of Smith does not teach a fuel pump upstream of a pressure regulator, the examiner considers Bergquist to disclose a fuel regulator downstream of another fuel regulator C, and Smith to suggest replacing the conventional fuel regulator C with a variable speed pump.

11. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

12. The applicant has not identified specific claim limitations that are missing from the combination of the prior art. The examiner has attempted to clarify the manner in which the art was applied.

***Conclusion***

13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Sarah Suereth whose telephone number is (571) 272-9061. The examiner can normally be reached on Mondays and Tuesdays from 7:00 AM to 3:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve McAllister, can be reached at (571) 272-4828. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://portal.uspto.gov/external/portal/pair. Any questions on access to the Private PAIR system should be directed to the Electronic Business Center (EBC) at (866) 217-9197 (toll-free).

/Sarah Suereth/

Examiner, Art Unit 3749

/Steven B. McAllister/

Supervisory Patent Examiner, Art Unit 3749